

(B)

$V = \pi R^2 \cdot h$ - VOLUME OF A CYLINDER

$$V_{\frac{1}{2}} = \frac{\pi R^2 h}{2}$$

$$\frac{\cancel{\pi R^2 h}}{2} = \cancel{5\pi R^2} \quad \cancel{2} \frac{h}{2} = 5 \cdot 2$$

$$h = 10 \text{ ft}$$

③

$$V = \frac{\pi R^3}{3} + 5\pi R^2$$

$$385 = \frac{3.14 R^3}{3} + 5 \cdot 3.14 \cdot R^2$$

$$\begin{array}{rcl} 385 & = & 1.05 R^3 + 15.7 R^2 \\ -385 & & -385 \end{array}$$

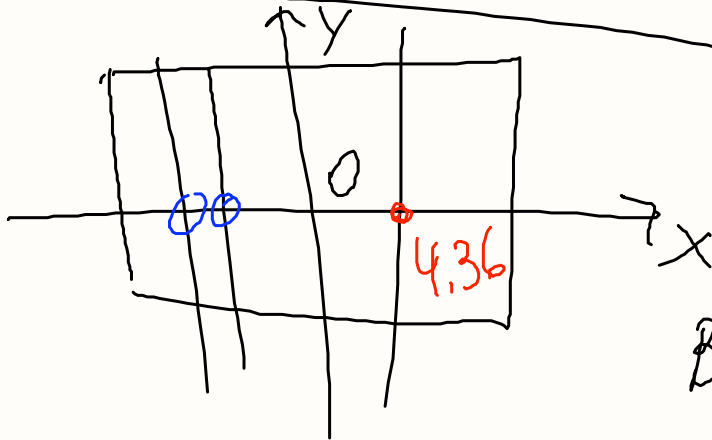
$$1.05 R^3 + 15.7 R^2 - 385 = 0$$

$$y = 1.05 x^3 + 15.7 x^2 - 385$$

ON A GRAPHING CALCULATOR
WE ARE GOING TO FIND
THE INTERCEPT
OF THE GRAPH WITH AXES.

THIS IS OUR SOLUTION.

$$\underline{R = 4.36 \text{ ft}}$$



THE OTHER TWO
INTERCEPTS ARE
NEGATIVE
NUMBERS.

BUT THE RADIUS > 0 .